

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P936954

Luminaire Tested: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P936954
REPORT IS A COMBINATION OF REPORTS P933464 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-050U-125D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

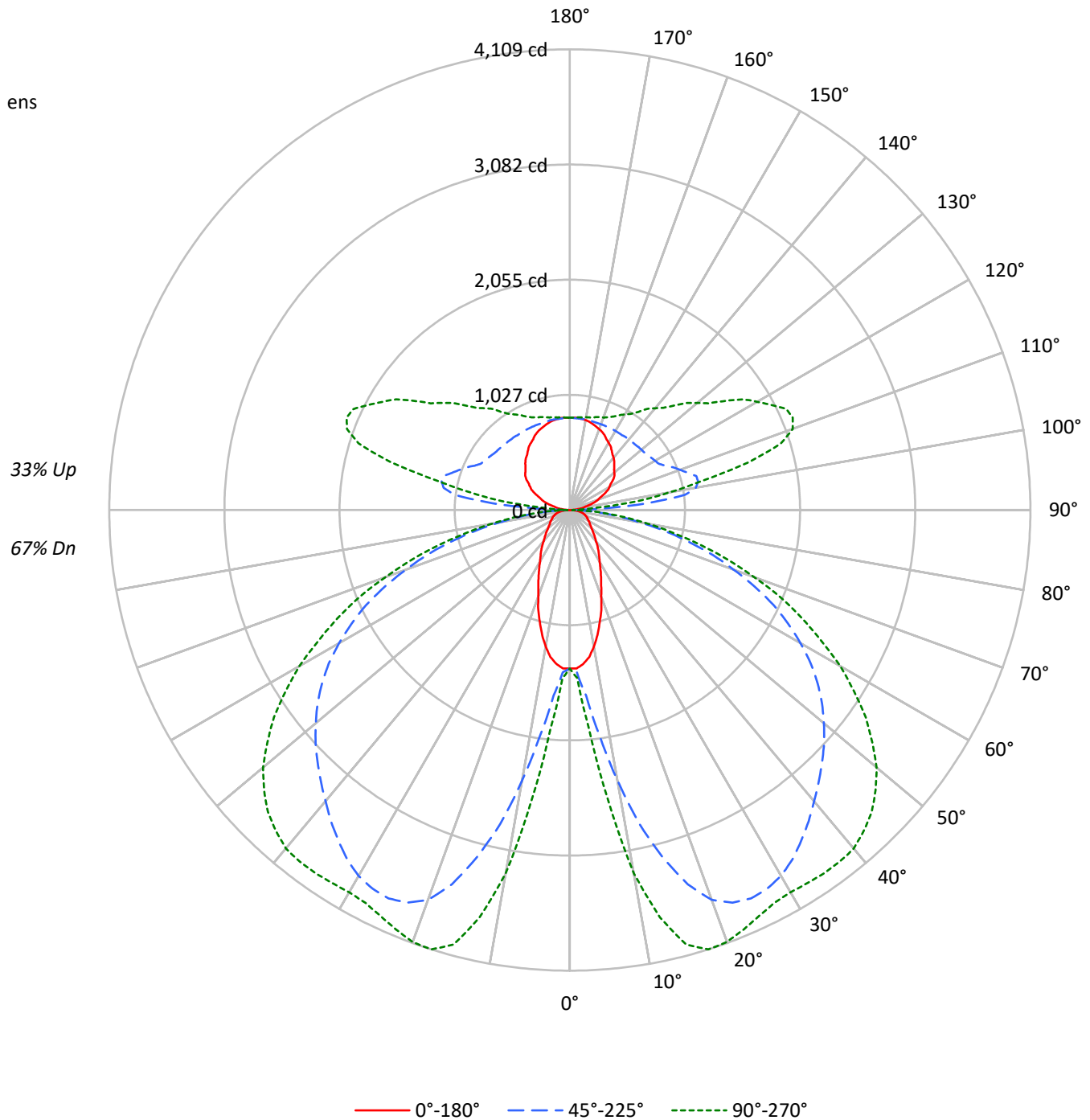
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16285.7 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 168
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67
1	101	96	92	88	95	91	87	83	80	78	75	71	69	67	62	61	59	55
2	91	83	76	71	86	78	72	67	70	65	61	61	58	55	54	51	49	45
3	83	72	64	58	77	68	61	55	61	55	50	54	49	45	47	44	41	37
4	75	64	55	48	70	60	52	46	53	47	42	47	42	38	42	38	34	31
5	69	56	47	41	64	53	45	39	47	41	36	42	37	32	37	33	29	26
6	63	50	41	35	59	47	39	34	42	36	31	38	32	28	33	29	25	23
7	58	45	36	30	55	43	35	29	38	32	27	34	29	24	30	26	22	20
8	54	41	32	27	51	39	31	26	35	28	24	31	26	22	27	23	20	17
9	50	37	29	24	47	35	28	23	32	25	21	28	23	19	25	21	17	15
10	47	34	26	21	44	32	25	20	29	23	19	26	21	17	23	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4372	4372	4372
5°	4273	5055	5877
10°	3877	7370	9743
15°	3297	9631	11765
20°	2685	11164	11990
25°	2240	11685	11746
30°	1890	11762	11724
35°	1672	11570	12027
40°	1458	11319	12341
45°	1321	11137	12389
50°	1213	10973	12184
55°	1163	10732	11644
60°	1192	10265	10791
65°	1242	9554	9620
70°	1326	8337	8126
75°	1474	6804	6342
80°	1623	4725	4273
85°	1474	2511	2187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12389 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.9	1.1
10°-20°	810.4	5.0
20°-30°	1417.5	8.7
30°-40°	1824.8	11.2
40°-50°	2038.2	12.5
50°-60°	1952.1	12.0
60°-70°	1547.1	9.5
70°-80°	909.7	5.6
80°-90°	255.9	1.6
90°-100°	402.1	2.5
100°-110°	1057.1	6.5
110°-120°	1096.1	6.7
120°-130°	879.2	5.4
130°-140°	689.9	4.2
140°-150°	529.5	3.3
150°-160°	381.3	2.3
160°-170°	233.3	1.4
170°-180°	78.8	0.5
0°-30°	2410.8	14.8
0°-40°	4235.5	26.0
0°-60°	8225.8	50.5
0°-90°	10938.5	67.2
90°-120°	2555.2	15.7
90°-150°	4653.8	28.6
90°-180°	5347.0	32.8
0°-180°	16285.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1414	1414	1414	1414	1414	
5°	1377	1477	1664	1882	1950	127
15°	1032	1904	3209	3891	4013	287
25°	659	2159	3822	3991	3995	304
35°	445	2064	3600	3804	3954	278
45°	304	1645	3182	3645	3809	236
55°	218	1045	2700	3136	3223	199
65°	173	555	2004	2254	2286	171
75°	127	341	1100	1209	1214	133
85°	46	105	273	300	304	48
90°	6	16	42	21	21	8
95°	53	208	692	357	243	59
105°	190	288	1169	1774	1655	202
115°	338	411	936	1867	2131	334
125°	471	528	851	1439	1697	418
135°	561	617	825	1162	1317	434
145°	650	692	814	991	1068	408
155°	735	756	814	894	920	338
165°	793	804	814	846	857	224
175°	825	825	820	830	830	78
180°	825	825	825	825	825	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6	1413.6
2.5°	1413.6	1413.6	1422.7	1427.2	1436.3	1440.8	1450.0	1459.0	1486.3	1490.9	1499.9
5°	1377.2	1395.3	1454.4	1477.2	1540.8	1627.2	1663.6	1722.7	1845.3	1881.8	1904.4
7.5°	1322.6	1363.6	1509.0	1545.4	1704.5	1931.7	2027.2	2154.5	2349.9	2445.4	2522.6
10°	1236.3	1322.6	1581.7	1668.1	1927.2	2272.6	2449.8	2627.1	2922.6	3054.4	3104.4
12.5°	1140.9	1281.7	1659.0	1777.2	2149.9	2654.4	2868.0	3063.5	3399.9	3577.1	3604.3
15°	1031.8	1222.6	1731.7	1904.4	2386.3	2972.6	3208.9	3449.8	3763.4	3890.8	3922.5
17.5°	936.3	1177.2	1799.9	1981.7	2568.0	3258.9	3499.9	3699.8	3954.3	4040.7	4063.5
20°	818.1	1104.5	1845.3	2081.7	2759.0	3468.0	3699.8	3854.3	4027.1	4081.6	4090.7
22.5°	731.7	1027.2	1872.6	2118.0	2886.2	3595.3	3790.8	3913.4	4031.6	4049.8	4054.3
25°	659.0	940.9	1868.1	2159.0	2995.3	3672.6	3822.5	3913.4	3981.6	3990.7	3990.7
27.5°	590.9	845.4	1849.9	2168.1	3077.1	3690.7	3808.9	3872.5	3904.4	3922.5	3922.5
30°	531.8	754.5	1804.4	2149.9	3113.4	3672.6	3768.0	3799.8	3831.7	3858.9	3872.5
32.5°	486.3	668.2	1736.3	2113.6	3118.0	3627.1	3695.3	3713.5	3758.9	3822.5	3845.3
35°	445.4	581.8	1659.0	2063.5	3090.8	3554.4	3599.8	3618.0	3708.9	3804.4	3836.1
37.5°	404.5	518.1	1559.0	1977.2	3049.9	3468.0	3499.9	3531.6	3672.6	3786.2	3822.5
40°	363.6	463.6	1440.8	1881.8	2986.2	3363.5	3390.7	3440.8	3627.1	3758.9	3795.2
42.5°	331.8	418.2	1313.6	1781.8	2904.4	3245.3	3286.2	3358.9	3572.6	3713.5	3754.4
45°	304.5	372.7	1177.2	1645.4	2799.8	3122.6	3181.7	3281.7	3508.9	3645.3	3681.6
47.5°	277.3	340.9	1036.3	1504.5	2686.2	2999.8	3077.1	3190.7	3422.6	3554.4	3586.2
50°	254.5	309.1	895.4	1354.5	2563.5	2868.0	2958.9	3077.1	3313.5	3436.2	3477.1
52.5°	236.4	281.8	763.6	1204.5	2422.6	2731.7	2836.3	2958.9	3181.7	3299.9	3327.1
55°	218.2	259.1	650.0	1045.4	2277.1	2586.2	2699.9	2818.1	3036.2	3136.2	3154.4
57.5°	209.1	240.9	554.6	895.4	2122.6	2422.6	2549.8	2659.0	2863.5	2940.7	2958.9
60°	195.4	227.2	481.8	768.2	1954.5	2268.1	2377.1	2486.3	2659.0	2722.6	2736.3
62.5°	181.8	218.2	427.2	645.4	1781.8	2086.3	2195.3	2295.3	2440.8	2486.3	2504.5
65°	172.7	209.1	386.3	554.6	1604.5	1895.4	2004.4	2090.8	2209.0	2254.4	2263.5
67.5°	163.7	200.0	354.5	477.3	1427.2	1704.5	1786.2	1868.1	1959.0	2004.4	2009.0
70°	150.0	190.9	327.2	422.7	1245.4	1486.3	1554.4	1640.8	1713.5	1736.3	1749.9
72.5°	140.9	177.3	309.1	381.8	1059.1	1277.3	1340.8	1390.9	1454.4	1477.2	1477.2
75°	127.2	159.1	290.9	340.9	868.1	1045.4	1100.0	1149.9	1199.9	1209.0	1195.4
77.5°	113.6	140.9	250.0	286.3	677.2	827.3	872.7	900.0	940.9	949.9	954.5
80°	95.4	122.7	195.4	222.8	490.9	609.1	640.9	663.6	700.0	700.0	709.1
82.5°	72.7	95.4	140.9	159.1	331.8	418.2	445.4	459.0	481.8	481.8	481.8
85°	45.5	59.1	90.9	104.6	200.0	254.5	272.7	277.3	295.5	300.0	300.0
87.5°	22.7	31.8	59.1	63.7	104.6	131.8	131.8	140.9	140.9	136.4	131.8
90°	5.6	9.9	14.4	15.5	24.4	36.2	42.1	37.4	28.0	21.0	21.0
92.5°	22.1	59.7	97.4	106.8	150.1	208.0	236.9	207.6	149.1	105.2	101.0
95°	53.2	122.0	191.0	208.2	369.6	584.9	692.5	617.9	468.9	357.1	344.3
97.5°	91.9	152.7	213.4	228.7	497.9	856.8	1036.3	989.2	895.0	824.3	800.2
100°	121.8	176.9	232.0	245.8	544.5	942.9	1142.1	1145.5	1152.4	1157.5	1128.8
102.5°	147.3	198.7	250.1	263.0	565.9	970.0	1172.0	1231.9	1352.0	1442.1	1417.5
105°	190.4	233.9	277.5	288.4	581.8	973.0	1168.7	1303.2	1572.3	1774.2	1761.0
107.5°	234.8	275.3	316.0	326.1	584.8	929.8	1102.2	1290.0	1665.5	1947.0	1950.3
110°	264.7	301.3	338.0	347.1	580.3	891.4	1046.9	1256.7	1676.5	1991.3	2005.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	293.9	328.8	363.8	372.5	580.5	857.8	996.5	1211.3	1640.8	1963.1	1984.2
115°	338.2	370.5	402.7	410.8	585.9	819.4	936.1	1143.0	1556.9	1867.3	1896.6
117.5°	381.9	411.2	440.5	447.8	596.7	795.3	894.6	1081.4	1454.8	1734.9	1767.4
120°	407.5	435.0	462.5	469.4	605.6	787.2	878.0	1048.7	1389.9	1645.9	1677.5
122.5°	432.3	460.2	487.9	494.9	618.4	783.0	865.2	1018.9	1326.2	1556.7	1587.8
125°	470.6	495.9	521.3	527.6	635.6	779.5	851.4	982.0	1243.0	1438.8	1467.5
127.5°	501.6	527.2	552.8	559.1	652.7	777.4	839.8	951.9	1176.0	1344.1	1368.4
130°	518.2	545.8	573.3	580.2	665.2	778.7	835.4	935.2	1134.7	1284.3	1306.7
132.5°	535.3	562.9	590.5	597.4	675.4	779.5	831.5	920.8	1099.4	1233.4	1253.4
135°	560.8	585.9	611.0	617.2	686.4	778.7	824.9	899.7	1049.3	1161.5	1178.8
137.5°	586.8	611.7	636.6	642.7	703.1	783.6	823.8	887.0	1013.5	1108.3	1122.5
140°	608.4	631.3	654.1	659.8	713.2	784.3	819.8	874.5	983.8	1065.7	1078.9
142.5°	625.0	646.1	667.4	672.6	721.7	787.2	819.8	867.8	963.8	1035.8	1047.2
145°	650.4	668.9	687.3	692.0	732.8	787.2	814.4	853.6	932.1	990.9	999.5
147.5°	676.0	693.9	711.9	716.3	749.0	792.6	814.4	845.3	907.0	953.3	960.5
150°	692.5	708.7	725.0	729.1	757.5	795.4	814.4	840.4	892.5	931.7	937.5
152.5°	709.7	722.0	734.3	737.4	763.1	797.3	814.4	836.7	881.2	914.6	918.9
155°	735.1	744.3	753.4	755.6	775.3	801.3	814.4	832.1	867.5	894.1	896.9
157.5°	754.0	762.9	771.7	773.9	787.4	805.4	814.4	828.2	855.6	876.3	878.4
160°	766.7	773.6	780.5	782.2	793.0	807.2	814.4	826.2	849.7	867.5	868.6
162.5°	779.5	784.7	789.8	791.1	798.9	809.2	814.4	824.3	844.2	859.1	860.2
165°	793.3	798.0	802.6	803.8	807.3	812.0	814.4	821.5	835.8	846.4	847.6
167.5°	806.0	808.2	810.4	811.0	813.9	817.9	819.8	824.5	833.9	840.9	841.4
170°	814.4	816.5	818.8	819.3	819.5	819.7	819.8	824.5	833.9	840.9	840.9
172.5°	818.8	819.2	819.7	819.8	819.8	819.8	819.8	823.5	830.9	836.5	836.0
175°	824.9	824.9	824.9	824.9	823.1	820.9	819.8	822.2	826.9	830.4	830.4
177.5°	824.9	824.9	824.9	824.9	823.6	821.9	821.0	822.9	826.6	829.3	828.8
180°	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9	824.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1413.6	1413.6
2.5°	1509.0	1499.9
5°	1940.9	1949.9
7.5°	2613.5	2608.9
10°	3249.8	3290.7
12.5°	3713.5	3722.5
15°	3995.2	4013.4
17.5°	4104.4	4108.9
20°	4108.9	4099.8
22.5°	4058.9	4049.8
25°	3999.8	3995.2
27.5°	3945.3	3949.8
30°	3922.5	3936.1
32.5°	3922.5	3945.3
35°	3931.6	3954.3
37.5°	3927.1	3954.3
40°	3908.9	3940.7
42.5°	3858.9	3881.6
45°	3781.6	3808.9
47.5°	3681.6	3699.8
50°	3554.4	3572.6
52.5°	3395.3	3399.9
55°	3204.4	3222.6
57.5°	2999.8	3004.4
60°	2772.6	2786.2
62.5°	2531.7	2531.7
65°	2277.1	2286.3
67.5°	2013.6	2036.3
70°	1745.4	1749.9
72.5°	1481.7	1481.7
75°	1209.0	1213.6
77.5°	949.9	949.9
80°	704.5	709.1
82.5°	486.3	495.5
85°	304.5	304.5
87.5°	140.9	127.2
90°	21.0	21.0
92.5°	84.2	67.5
95°	293.7	243.0
97.5°	703.7	607.3
100°	1013.9	899.1
102.5°	1319.1	1220.7
105°	1708.2	1655.3
107.5°	1963.0	1975.8
110°	2060.1	2115.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2068.9	2153.5
115°	2014.0	2131.4
117.5°	1897.6	2027.8
120°	1804.0	1930.4
122.5°	1712.6	1837.4
125°	1582.4	1697.3
127.5°	1465.3	1562.2
130°	1396.3	1485.9
132.5°	1333.7	1413.9
135°	1247.9	1317.0
137.5°	1179.0	1235.6
140°	1131.8	1184.7
142.5°	1092.7	1138.2
145°	1034.0	1068.5
147.5°	989.0	1017.5
150°	960.6	983.8
152.5°	936.4	953.9
155°	908.6	920.1
157.5°	886.4	894.6
160°	873.4	878.0
162.5°	864.7	869.2
165°	852.3	857.0
167.5°	843.4	845.4
170°	840.9	840.9
172.5°	834.3	832.6
175°	830.4	830.4
177.5°	826.8	824.9
180°	824.9	824.9



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	7.56	8.66	8.35	9.48	10.48	20.76	21.85	21.54	22.67	23.67
	3H	8.29	9.27	9.08	10.10	11.13	22.62	23.61	23.42	24.43	25.46
	4H	8.59	9.53	9.41	10.36	11.40	23.28	24.21	24.09	25.04	26.08
	6H	8.86	9.72	9.69	10.56	11.62	23.72	24.59	24.55	25.43	26.48
	8H	8.93	9.76	9.77	10.62	11.67	23.85	24.68	24.69	25.54	26.59
	12H	8.96	9.74	9.80	10.60	11.68	23.93	24.72	24.78	25.57	26.65
4H	2H	14.81	15.75	15.63	16.58	17.62	21.06	21.99	21.88	22.82	23.86
	3H	16.40	17.19	17.24	18.05	19.11	23.13	23.91	23.96	24.78	25.83
	4H	16.51	17.22	17.35	18.09	19.17	23.91	24.63	24.76	25.49	26.57
	6H	16.53	17.15	17.39	18.04	19.13	24.47	25.09	25.33	25.98	27.06
	8H	16.52	17.10	17.38	17.98	19.08	24.64	25.22	25.50	26.10	27.20
	12H	16.48	17.01	17.37	17.91	19.02	24.75	25.27	25.63	26.17	27.28
8H	4H	17.98	18.56	18.84	19.44	20.54	23.99	24.57	24.86	25.45	26.55
	6H	18.23	18.71	19.12	19.64	20.74	24.63	25.12	25.53	26.04	27.14
	8H	18.25	18.68	19.15	19.60	20.71	24.86	25.29	25.76	26.21	27.32
	12H	18.23	18.61	19.14	19.52	20.69	25.02	25.40	25.93	26.31	27.48
12H	4H	18.13	18.66	19.02	19.56	20.67	23.95	24.48	24.84	25.38	26.49
	6H	18.49	18.92	19.40	19.84	20.96	24.62	25.05	25.52	25.97	27.08
	8H	18.57	18.95	19.48	19.86	21.03	24.87	25.24	25.77	26.15	27.32